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USPT	l11 and l15	6	L16
USPT	l3 and l9 and l13	6	L15
USPT	l12 and l13	6	L14
USPT	('4117063'| '4937284'| '4333898'| '4058583'| '4289860'| '5112919')[PN]	6	L13
USPT	l10 and l11	43	L12
USPT	extruder or extruded or extruding	136448	L11
USPT	l8 and l9	50	L10
USPT	granulate or granules or granulated or granulating	100528	L9
USPT	l6 and l7	313	L8
USPT	ldpe or polyethylene or ethylene polymer	265323	L7
USPT	l3 and l5	564	L6
USPT	l4.ab.	4146	L5
USPT	silane or trimethoxysiane or vinyltrimethoxysilane	45646	L4
USPT	cable or wire	558171	L3

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     FILE 'CAPLUS' ENTERED AT 18:24:11 ON 10 JAN 2002
L1             1 S JP04293945/PN

     FILE 'DPCI' ENTERED AT 18:27:42 ON 10 JAN 2002
L2             1 S JP04293945/PN OR WO0036612/PN
L3             2 S JP04293945/PN OR WO200036612/PN
                 SEL PN.G

     FILE 'CAPLUS' ENTERED AT 18:28:42 ON 10 JAN 2002
L4             1 S E1/PN

     FILE 'DPCI' ENTERED AT 18:32:25 ON 10 JAN 2002
L5             1 S US4289860/PN
                 SEL PN.G

     FILE 'CAPLUS' ENTERED AT 18:33:05 ON 10 JAN 2002
L6             0 S L2-E12/PN
L7             7 S E2-E12/PN
L8             7 S L7 NOT L4

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ANSWER 1 OF 1 CAPLUS COPYRIGHT 2002 ACS

AN 1998:561362 CAPLUS

DN 129:169066

TI Semiconductive resin composition, its preparation, and a power cable using it

IN Yoshida, Yoshie; Mizutani, Toshikazu; Kitagawa, Masaki; Deguchi, Jichio

PA Mitsubishi Chemical Corp., Japan

SO Eur. Pat. Appl., 17 pp.
CODEN: EPXXDW

DT Patent

LA English

IC ICM H01B001-24

CC 76-2 (Electric Phenomena)
Section cross-reference(s): 38

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 858081	A2	19980812	EP 1998-102132	19980206
	EP 858081	A3	19990203		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 10279769	A2	19981020	JP 1998-24254	19980205
	CA 2228925	AA	19980807	CA 1998-2228925	19980206
	US 5985181	A	19991116	US 1998-20897	19980209 <--
PRAI	JP 1997-24972		19970207		

AB There is provided a semiconductive resin compn. comprising: (A) 5-100 parts by wt. of a modified ethylene copolymer obtainable by subjecting an ethylene copolymer and a vinyl monomer to graft polymn. conditions; (B) 0.5-15 parts by wt. of an unsatd. silane compd.; (D) 10-110 parts by wt. of C black; and (E) 0-95 parts by wt. of an ethylene copolymer, based on 100 parts by wt. total of (A) and (E); the component (B) is incorporated into the compn. by subjecting the component (B) to melt graft reaction together with the component (A) and/or component (E) in the presence of 0.01-2 parts by wt. of a radical generator (C); the vinyl monomer unit is contained in an amt. of 5-35% by wt. of the total amt. of the components (A) and (E); and the degree of crosslinking of the compn. is 30-90% by wt.

ST semiconductive resin compn prodn use; power cable semiconductive resin

IT Carbon black, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(Vulcan XC72 and Denka Black; in prepn. of semiconductive resin compn. for power cables)

IT Crosslinking
Graft polymerization
(in prepn. of semiconductive resin compn. for power cables)

IT Silanes
RL: RCT (Reactant); TEM (Technical or engineered material use); USES (Uses)
(in prepn. of semiconductive resin compn. for power cables)

IT Electric cables
(power; prepn. of semiconductive resin compn. for)

IT Semiconductor materials
(prepn. of semiconductive resin compn. for power cables)

IT Polymers, uses
RL: DEV (Device component use); PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(prepn. of semiconductive resin compn. for power cables)

IT 9003-53-6P, Polystyrene 9010-86-0P, Ethylene-ethyl acrylate copolymer 24937-78-8P, Ethylene-vinyl acetate copolymer 35312-82-4P, Ethylene-vinyltrimethoxysilane copolymer
RL: DEV (Device component use); PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(prepn. of semiconductive resin compn. for power cables contg.)

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	CA 2228925	AA	19980807	CA 1998-2228925	19980206
	US 5985181	A	19991116	US 1998-20897	19980209 <--
PRAI	JP 1997-24972		19970207		

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Graft polymerization
(in prepn. of semiconductive resin compn. for power cables)

IT Silanes
RL: RCT (Reactant); TEM (Technical or engineered material use); USES (Uses)
(in prepn. of semiconductive resin compn. for power cables)

IT Electric cables
(power; prepn. of semiconductive resin compn. for)

IT Semiconductor materials
(prepn. of semiconductive resin compn. for power cables)

IT Polymers, uses
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RL: DEV (Device component use); PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(prepn. of semiconductive resin compn. for power cables contg.)

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L1 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2002 ACS
AN 1993:104471 CAPLUS
DN 118:104471
TI Silane-crosslinked resin semiconductive compositions for cable covering
IN Nishiyama, Hidemi; Kimura, Hitoshi
PA Furukawa Electric Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 11 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM C08L023-08
ICS C08K003-04; C08K005-14; C08K005-54; C08K005-56; H01B001-24
CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 76
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 04293945	A2	19921019	JP 1991-60448	19910325 <--

AB The title compns comprise ethylene (I) polymers 60-95, .gtoreq.1 I copolymers with vinyl acetate, propylene, Et acrylate (II), Me acrylate, and/or acrylic acid 5-40, elec. conductive carbon 15-80, org. silanes 0.5-10.0, org. peroxides 0.05-5.0, and silanol condensation catalysts 0.01-3.0 parts. Thus, a 5.7-mm-diam. twisted wire was covered with a compn. contg. LLDPE 80, I-II copolymer 20, elec. conductive carbon 60, vinyltrimethoxysilane 2.0, dicumyl peroxide 0.2, dibutyltin dilaurate 0.1, and Irganox 1010 0.3 part and crosslinked in water at 80.degree. for 24 h to form a 1.0-mm semiconductive layer showing elongation 350% and good surface smoothness.
ST silane crosslinking ethylene polymer semiconductor
IT Semiconductor materials
Plastics, extruded
RL: USES (Uses)
(silane-crosslinked ethylene polymers contg. carbon, for covering of cables)
IT Alkenes, polymers
RL: USES (Uses)
(.alpha.-, polymers, with ethylene, linear low-d., silane-crosslinked, for semiconductive sheathing for cables)
IT 74-85-1D, Ethylene, polymers with .alpha.-olefins and vinyltrimethoxysilane 2768-02-7D, Vinyltrimethoxysilane, polymers with polyolefins 9010-77-9D, Acrylic acid-ethylene copolymer, polymers with polyolefins and vinyltrimethoxysilane 9010-79-1D, Ethylene-propylene copolymer, polymers with polyolefins and vinyltrimethoxysilane 9010-86-0D, Ethyl acrylate-ethylene copolymer, polymers with polyolefins and vinyltrimethoxysilane 24937-78-8D, Ethylene-vinyl acetate copolymer, polymers with polyolefins and vinyltrimethoxysilane 25103-74-6D, Ethylene-methyl acrylate copolymer, polymers with polyolefins and vinyltrimethoxysilane
RL: USES (Uses)
(crosslinked, contg. carbon, for semiconductive covering of cables)
IT 7440-44-0, Carbon, properties
RL: PRP (Properties)
(elec. conductive, silane-crosslinked ethylene polymers contg., for semiconductive coverings of cables)
IT 107240-66-4, Ethylene-propylene-vinyltrimethoxysilane graft copolymer 113408-96-1, Ethyl acrylate-ethylene-vinyltrimethoxysilane graft copolymer
RL: USES (Uses)
(linear low-d., silane-crosslinked, for semiconductive covering of cables)

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L1 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2002 ACS
AN 1993:104471 CAPLUS
DN 118:104471
TI Silane-crosslinked resin semiconductive compositions for cable covering
IN Nishiyama, Hidemi; Kimura, Hitoshi
PA Furukawa Electric Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 11 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM C08L023-08
ICS C08K003-04; C08K005-14; C08K005-54; C08K005-56; H01B001-24
CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 76
FAN.CNT 1

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IT Semiconductor materials
Plastics, extruded
RL: USES (Uses)
(silane-crosslinked ethylene polymers contg. carbon, for covering of cables)
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RL: USES (Uses)
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IT 74-85-1D, Ethylene, polymers with .alpha.-olefins and vinyltrimethoxysilane 2768-02-7D, Vinyltrimethoxysilane, polymers with polyolefins 9010-77-9D, Acrylic acid-ethylene copolymer, polymers with polyolefins and vinyltrimethoxysilane 9010-79-1D, Ethylene-propylene copolymer, polymers with polyolefins and vinyltrimethoxysilane 9010-86-0D, Ethyl acrylate-ethylene copolymer, polymers with polyolefins and vinyltrimethoxysilane 24937-78-8D, Ethylene-vinyl acetate copolymer, polymers with polyolefins and vinyltrimethoxysilane 25103-74-6D, Ethylene-methyl acrylate copolymer, polymers with polyolefins and vinyltrimethoxysilane
RL: USES (Uses)
(crosslinked, contg. carbon, for semiconductive covering of cables)
IT 7440-44-0, Carbon, properties
RL: PRP (Properties)
(elec. conductive, silane-crosslinked ethylene polymers contg., for semiconductive coverings of cables)
IT 107240-66-4, Ethylene-propylene-vinyltrimethoxysilane graft copolymer 113408-96-1, Ethyl acrylate-ethylene-vinyltrimethoxysilane graft copolymer
RL: USES (Uses)
(linear low-d., silane-crosslinked, for semiconductive covering of cables)

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L1: Entry 1 of 1 File: DWPI Oct 22, 1998

DERWENT-ACC-NO: 1992-394623
DERWENT-WEEK: 199847

TITLE: Silane-crosslinked semiconducting resin compsn. for power cable covering - is prepd. by mixing and kneading mixt. contg. polyethylene, ethylene@! copolymers, organo:silane cpd.

PATENT-ASSIGNEE:

ASSIGNEE	CODE
FURUKAWA ELECTRIC CO LTD	FURU

PRIORITY-DATA: 1991JP-0060448 (March 25, 1991)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
JP 2813487 B2	October 22, 1998		010	C08L023/08
JP 04293945 A	October 19, 1992		011	C08L023/08

APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
JP 2813487B2	March 25, 1991	1991JP-0060448	
JP 2813487B2		JP 4293945	Previous Publ.
JP04293945A	March 25, 1991	1991JP-0060448	

INT-CL (IPC): C08K 3/04; C08K 5/14; C08K 5/54; C08K 5/56; C08L 23/08; H01B 1/24

ABSTRACTED-PUB-NO: JP04293945A
BASIC-ABSTRACT:

The compsn. is characterised in that it is prepd. by mixing and kneading an intimate mixt. comprising 60-95 pts. wt. of a polyethylene, 5-40 pts. wt. of one or more ethylene copolymers selected from EVA copolymer, ethylene-propylene copolymer, ethylene-ethyl acrylate copolymer and ethylene-methyl acrylate copolymer, 15-80 pts. wt. of an electricoconductive carbon black and an organosilane cpd. with 0.05-5.0 pts. wt. of an organic peroxide and 0.01-3.0 pts. wt. of a silanol condensation catalyst.

The polyethylene is pref. e.g. a linear low density polyethylene (L-LDPE). The organosilane cpd. is, e.g. vinyl trimethoxysilane. The pref. organic peroxide is, e.g. dicumyl peroxide. The silanol condensation catalyst is, e.g. dibutyltin dilaurate.

USE/ADVANTAGE - Used as a semiconducting layer of power cable covering. It does not form any voids at the interface with outer insulating layer and gives good insulation characteristicref

CHOSEN-DRAWING: Dwg.0/5

TITLE-TERMS: SILANE CROSSLINK SEMICONDUCTOR RESIN COMPOSITION POWER CABLE COVER

PREPARATION MIX KNEAD MIXTURE CONTAIN POLYETHYLENE POLYETHYLENE@ COPOLYMER ORGANO SILANE COMPOUND

DERWENT-CLASS: A17 A85 E19 L03

CPI-CODES: A04-G01E; A07-A02; A08-C05; A08-M01D; A08-R03; A09-A03; A11-A03; A12-E02A; E05-E02D; E05-F01; E10-A04B; E31-N04D; L03-A01B1; L03-A02E;

CHEMICAL-CODES:

Chemical Indexing M3 *01*
Fragmentation Code
C106 C810 M411 M782 M903 M904 M910 Q130 Q454 Q610
R043
Specfic Compounds
05085M
Registry Numbers
92407

Chemical Indexing M3 *02*
Fragmentation Code
B414 B713 B720 B741 B831 H7 H713 H721 M210 M211
M212 M250 M272 M281 M283 M320 M411 M510 M520 M530
M540 M782 M903 M904 Q121 Q130 Q454 Q610 R043
Markush Compounds
199248-C6901-M
Registry Numbers
92407

Chemical Indexing M3 *03*
Fragmentation Code
G010 G019 G100 K0 K9 K930 M280 M313 M322 M331
M340 M342 M373 M392 M414 M510 M520 M532 M540 M782
M903 M904 M910 Q130 Q454 Q610 R043
Specfic Compounds
00476M
Registry Numbers
92407

Chemical Indexing M3 *04*
Fragmentation Code
A350 A923 A960 J0 J011 J1 J171 M210 M214 M225
M231 M250 M262 M281 M282 M320 M411 M510 M520 M530
M540 M620 M630 M650 M782 M903 M904 M910 Q121 Q130
Q454 Q610 R043
Specfic Compounds
00415M
Registry Numbers
92407

UNLINKED-DERWENT-REGISTRY-NUMBERS: 0415U; 0476U ; 1669U ; 5085U ; 5402U

POLYMER-MULTIPUNCH-CODES-AND-KEY-SERIALS:
Key Serials: 0032 0037 0150 0205 0218 0219 0224 0226 0231 0239 0241 0242 0250 0495 0537 0544 0789 1058 2020 2217 2291 2292 2300 2302 2330 2551 2653 2727 3006 3020 3151 3153 3155 3158 3319

Multipunch Codes: 014 02& 034 04- 040 041 046 047 050 066 067 074 075 076 08& 081 082 083 116 15- 17& 229 231 266 27& 28& 292 299 307 308 310 341 392 41- 44& 444 473 477 48- 506 509 531 54& 575 58& 595 688 690 720 723

SECONDARY-ACC-NO:
CPI Secondary Accession Numbers: C1992-175161